

FLASHBAY ELECTRONICS
Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village,
Shatian Town, Huiyang District, Huizhou City,
Guangdong Province, P.R.China

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TEST REPORT

Test Report No. : **4380976.55** Version 1
Project No. : **4380976.00**
Test Report Date : **2021-10-15**

Job No. : 21-01926
Applicant : FLASHBAY ELECTRONICS
Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village, Shatian Town,
Huiyang District, Huizhou City, Guangdong Province, P.R.China
Product Name : Water Bottle
Model No. : Aqualok-QL
Test Requested : 1. Regulation (EC) No 1935/2004, Regulation (EU) 10/2011, EU
2020/1245 and its amendments
- Overall migration
- Specific migration of heavy metals
- Specific migration of primary aromatic amine
2. Overall migration according to Council Europe Resolution AP (2004) 5
on Silicones Used for Food Contact Applications
Test Method : Please refer to next pages
Sample Received : 2021-09-22
Testing Period : 2021-09-22 to 2021-10-09

Test Results
- following pages -

Resume:

No.	Parameter	Product Name: Water Bottle Model No.: Aqualok-QL
		
1.	Overall migration (EU 10/2011)	PASS
2.	Specific migration of heavy metals (EU 10/2011 and EU 2020/1245)	PASS
3.	Specific migration of Primary Aromatic Amine (EU 10/2011 and EU 2020/1245)	PASS
4.	Overall migration (Resolution AP(2004) 5)	PASS

Guangzhou, October 15, 2021

Signed for and on behalf of

DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch

Chemical & Mechanical




Devin Ai

Approved Signatory

Attention: Please note that every statement made in this report is only valid for the samples tested and reported herein. This report shall not be reproduced except in full, without the written approval of the testing laboratory. Only the report with CMA logo has the function of social proof in China market.

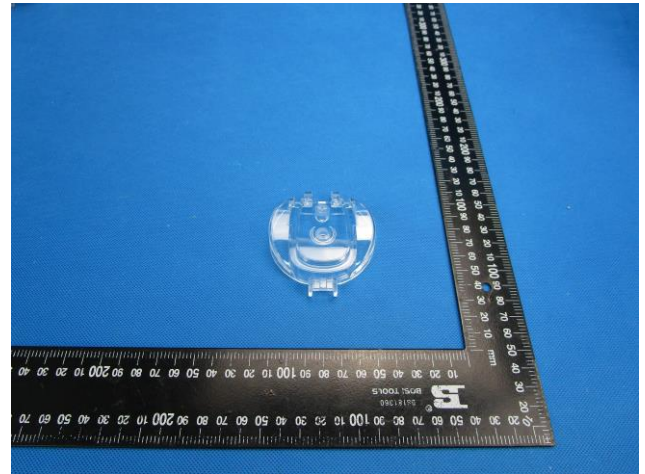
Sample Descriptions:

No.	Description(s)	Material(s) (claimed by applicant)
(1)	Lid	PP (Black)
(2)	Top cover	Tritan (Transparent)
(3)	Gasket	Silicone (Transparent)
(4)	Bottle	Tritan (Black)
(5)	Bottle	Tritan (Blue)
(6)	Bottle	Tritan (Green)

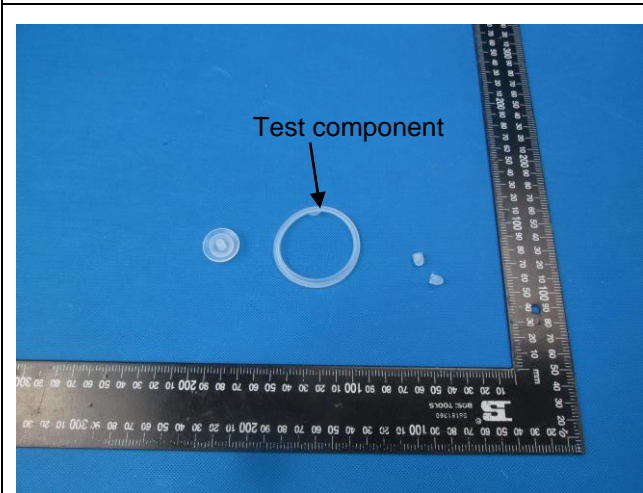
Sample photos



Picture (1), Lid



Picture (2), Top cover



Picture (3), Gasket



Picture (4), Bottle



Picture (5), Bottle



Picture (6), Bottle

TEST RESULTS

1. Regulation (EC) No 1935/2004, Regulation (EU) 10/2011, EU 2020/1245 and its amendments

Overall migration

With reference to (EU) No.10/2011 and its amendments, analysis by method EN 1186-3: 2002.

Parameter	Test Condition	Result (mg/dm ²)									Limit (mg/dm ²)
		(1)			(2)			(4)			
		1 st	2 nd	3 rd	1 st	2 nd	3 rd	1 st	2 nd	3 rd	
Overall migration	3%(w/v) Acetic acid, 70°C, 2h	<3	<3	<3	<3	<3	<3	<3	<3	<3	10
	50%(v/v) Ethanol, 70°C, 2 h	<3	<3	<3	<3	<3	<3	<3	<3	<3	10

Parameter	Test Condition	Result (mg/dm ²)						Limit (mg/dm ²)
		(5)			(6)			
		1 st	2 nd	3 rd	1 st	2 nd	3 rd	
Overall migration	3%(w/v) Acetic acid, 70°C, 2h	<3	<3	<3	<3	<3	<3	10
	50%(v/v) Ethanol, 70°C, 2 h	<3	<3	<3	<3	<3	<3	10

Remark:

1. mg/dm² = milligram per square decimeter

Specific migration of heavy metals

With reference to (EU) No. 2020/1245 for selection of conditions and test method for specific migration. Analysis was performed by inductively coupled plasma optical emission spectrometer (ICP-OES) and inductively coupled plasma mass spectrometer (ICP-MS).

Parameter	Test Condition	Result (mg/kg)						MDL (mg/kg)	Limit (mg/kg)
		(1)			(2)				
		1 st	2 nd	3 rd	1 st	2 nd	3 rd		
Barium (Ba)	3%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	1
Cobalt (Co)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.05	0.05
Copper (Cu)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.5	5
Iron (Fe)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.0	48
Lithium (Li)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	0.6
Manganese (Mn)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	0.6

Parameter	Test Condition	Result (mg/kg)						MDL (mg/kg)	Limit (mg/kg)
		(1)			(2)				
		1 st	2 nd	3 rd	1 st	2 nd	3 rd		
Zinc (Zn)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.5	5
Aluminum (Al)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	1
Nickel (Ni)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.02	0.02
Antimony (Sb)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	0.04
Arsenic (As)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Cadmium (Cd)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.002	N.D.
Chromium (Cr)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Lead (Pb)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Mercury (Hg)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Lanthanum (La)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	0.05
Europium (Eu)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	
Gadolinium (Gd)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	
Terbium (Tb)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	
Tungsten (W)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	0.05

Parameter	Test Condition	Result (mg/kg)						MDL (mg/kg)	Limit (mg/kg)
		(4)			(5)				
		1 st	2 nd	3 rd	1 st	2 nd	3 rd		
Barium (Ba)	3%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	1
Cobalt (Co)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.05	0.05
Copper (Cu)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.5	5
Iron (Fe)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.0	48
Lithium (Li)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	0.6
Manganese (Mn)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	0.6
Zinc (Zn)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.5	5
Aluminum (Al)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	1
Nickel (Ni)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.02	0.02
Antimony (Sb)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	0.04
Arsenic (As)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Cadmium (Cd)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.002	N.D.
Chromium (Cr)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Lead (Pb)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Mercury (Hg)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.
Lanthanum (La)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	0.05
Europium (Eu)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	
Gadolinium (Gd)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	
Terbium (Tb)		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	
Tungsten (W)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	0.05	

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(6)				
		1 st	2 nd	3 rd		
Barium (Ba)	3%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	0.1	1
Cobalt (Co)		N.D.	N.D.	N.D.	0.05	0.05
Copper (Cu)		N.D.	N.D.	N.D.	0.5	5
Iron (Fe)		N.D.	N.D.	N.D.	1.0	48
Lithium (Li)		N.D.	N.D.	N.D.	0.1	0.6
Manganese (Mn)		N.D.	N.D.	N.D.	0.1	0.6
Zinc (Zn)		N.D.	N.D.	N.D.	0.5	5
Aluminum (Al)		N.D.	N.D.	N.D.	0.1	1
Nickel (Ni)		N.D.	N.D.	N.D.	0.02	0.02
Antimony (Sb)		N.D.	N.D.	N.D.	0.01	0.04
Arsenic (As)		N.D.	N.D.	N.D.	0.01	N.D.
Cadmium (Cd)		N.D.	N.D.	N.D.	0.002	N.D.
Chromium (Cr)		N.D.	N.D.	N.D.	0.01	N.D.
Lead (Pb)		N.D.	N.D.	N.D.	0.01	N.D.
Mercury (Hg)		N.D.	N.D.	N.D.	0.01	N.D.
Lanthanum (La)		N.D.	N.D.	N.D.	0.01	0.05
Europium (Eu)		N.D.	N.D.	N.D.	0.01	
Gadolinium (Gd)		N.D.	N.D.	N.D.	0.01	
Terbium (Tb)		N.D.	N.D.	N.D.	0.01	
Tungsten (W)	N.D.	N.D.	N.D.	0.01	0.05	

Remark:

1. mg/kg = milligram per kilogram
2. N.D. = Not Detected (below MDL)
3. MDL = Method Detection Limit

Specific migration of Primary Aromatic Amine (PAA)

With reference to (EU) No. 2020/1245, analysis was performed by Liquid chromatography tandem mass spectrometry.

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(1)				
		1 st	2 nd	3 rd		
4-Aminobiphenyl	3%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	0.002	N.D.
Benzidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Naphthylamine		N.D.	N.D.	N.D.	0.002	N.D.

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(1)				
		1 st	2 nd	3 rd		
o-Aminoazotoluene		N.D.	N.D.	N.D.	0.002	N.D.
5-Nitro-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-Aniline		N.D.	N.D.	N.D.	0.002	N.D.
4-Methoxy-m-phenylenediamine		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylenedianiline		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dichlorobenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethoxybenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethylbenzidine		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Methylenedi-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Methoxy-5-Methylaniline		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylene bis(2-chloroaniline)		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Diaminodiphenylether		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Thioaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2,4-Toluediamine		N.D.	N.D.	N.D.	0.002	N.D.
2,4,5-Trimethylaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Anisidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Aminoazobenzol		N.D.	N.D.	N.D.	0.002	N.D.
Other PAAs		N.D.	N.D.	N.D.	0.002	0.01

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(2)				
		1 st	2 nd	3 rd		
4-Aminobiphenyl	33%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	0.002	N.D.
Benzidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Naphthylamine		N.D.	N.D.	N.D.	0.002	N.D.
o-Aminoazotoluene		N.D.	N.D.	N.D.	0.002	N.D.
5-Nitro-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-Aniline		N.D.	N.D.	N.D.	0.002	N.D.
4-Methoxy-m-phenylenediamine		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylenedianiline		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dichlorobenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethoxybenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethylbenzidine		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Methylenedi-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(2)				
		1 st	2 nd	3 rd		
2-Methoxy-5-Methylaniline		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylene bis(2-chloroaniline)		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Diaminodiphenylether		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Thioaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2,4-Toluenediamine		N.D.	N.D.	N.D.	0.002	N.D.
2,4,5-Trimethylaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Anisidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Aminoazobenzol		N.D.	N.D.	N.D.	0.002	N.D.
Other PAAs		N.D.	N.D.	N.D.	0.002	0.01

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(4)				
		1 st	2 nd	3 rd		
4-Aminobiphenyl	3%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	0.002	N.D.
Benzidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Naphthylamine		N.D.	N.D.	N.D.	0.002	N.D.
o-Aminoazotoluene		N.D.	N.D.	N.D.	0.002	N.D.
5-Nitro-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-Aniline		N.D.	N.D.	N.D.	0.002	N.D.
4-Methoxy-m-phenylenediamine		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylenedianiline		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dichlorobenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethoxybenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethylbenzidine		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Methylenedi-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Methoxy-5-Methylaniline		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylene bis(2-chloroaniline)		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Diaminodiphenylether		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Thioaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2,4-Toluenediamine		N.D.	N.D.	N.D.	0.002	N.D.
2,4,5-Trimethylaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Anisidine	N.D.	N.D.	N.D.	0.002	N.D.	
4-Aminoazobenzol	N.D.	N.D.	N.D.	0.002	N.D.	

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(4)				
		1 st	2 nd	3 rd		
Other PAAs		N.D.	N.D.	N.D.	0.002	0.01

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(5)				
		1 st	2 nd	3 rd		
4-Aminobiphenyl	3%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	0.002	N.D.
Benzidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Naphthylamine		N.D.	N.D.	N.D.	0.002	N.D.
o-Aminoazotoluene		N.D.	N.D.	N.D.	0.002	N.D.
5-Nitro-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-Aniline		N.D.	N.D.	N.D.	0.002	N.D.
4-Methoxy-m-phenylenediamine		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylenedianiline		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dichlorobenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethoxybenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethylbenzidine		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Methylenedi-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Methoxy-5-Methylaniline		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylene bis(2-chloroaniline)		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Diaminodiphenylether		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Thioaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2,4-Toluenediamine		N.D.	N.D.	N.D.	0.002	N.D.
2,4,5-Trimethylaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Anisidine	N.D.	N.D.	N.D.	0.002	N.D.	
4-Aminoazobenzol	N.D.	N.D.	N.D.	0.002	N.D.	
Other PAAs		N.D.	N.D.	N.D.	0.002	0.01

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(6)				
		1 st	2 nd	3 rd		
4-Aminobiphenyl	3%(w/v) Acetic acid, 70°C, 2h	N.D.	N.D.	N.D.	0.002	N.D.
Benzidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Naphthylamine		N.D.	N.D.	N.D.	0.002	N.D.

Parameter	Test Condition	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)
		(6)				
		1 st	2 nd	3 rd		
o-Aminoazotoluene		N.D.	N.D.	N.D.	0.002	N.D.
5-Nitro-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-Aniline		N.D.	N.D.	N.D.	0.002	N.D.
4-Methoxy-m-phenylenediamine		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylenedianiline		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dichlorobenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethoxybenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dimethylbenzidine		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Methylenedi-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Methoxy-5-Methylaniline		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylene bis(2-chloroaniline)		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Diaminodiphenylether		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Thioaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2,4-Toluediamine		N.D.	N.D.	N.D.	0.002	N.D.
2,4,5-Trimethylaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Anisidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Aminoazobenzol		N.D.	N.D.	N.D.	0.002	N.D.
Other PAAs		N.D.	N.D.	N.D.	0.002	0.01

Remark:

1. mg/kg = milligram per kilogram
2. N.D. = Not Detected (below MDL)
3. MDL = Method Detection Limit
4. Those analyses were performed in DEKRA's partner lab.

2. Overall migration according to Council Europe Resolution AP (2004) 5 on Silicones Used for Food Contact Applications

With reference to Resolution AP (2004) 5, analysis by method EN 1186-3: 2002.

Parameter	Test Condition	Result (mg/dm ²)			Limit (mg/dm ²)
		(3)			
		1 st	2 nd	3 rd	
Overall migration	50%(v/v) Ethanol, 70°C, 2 h	<3	<3	<3	10

Parameter	Test Condition	Result (mg/dm ²)			Limit (mg/dm ²)
		(3)			
		1 st	2 nd	3 rd	
	3%(w/v) Acetic acid, 70°C, 2h	5.2	<3	<3	10

Remark:

1. mg/dm² = milligram per square decimeter

---End of Report---